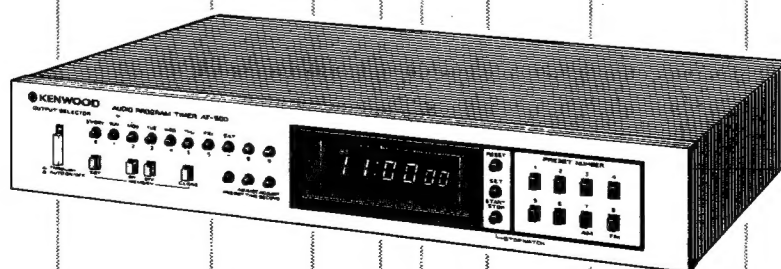


AUDIO PROGRAM TIMER

# AT-500

INSTRUCTION MANUAL



 **KENWOOD**

## INTRODUCTION

Thank you for selecting our audio program timer. It is audio program timer which embodies KENWOOD'S rich experience and outstanding technology.

This manual should be read carefully to understand how to connect and operate the new audio program timer correctly.

## FOR YOUR RECORDS

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your KENWOOD dealer for information or service on this product.

Model AT-500      Serial number \_\_\_\_\_

## UNPACKING

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

## INSTALLATION PRECAUTIONS

- (a) Avoid locations subject to direct sunlight.
- (b) Avoid high or low temperature extremes.
- (c) Make sure power is off before making any system connections.

## WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

## IMPORTANT!

### U.S.A. AND CANADA

Units shipped to the U.S.A. and Canada are designed for operation with 120 volts AC 60 Hz only. These units are not equipped with an AC Voltage Selector switch and Frequency Selector switch, and the description of such switches that follows should be disregarded.

### ALL OTHER COUNTRIES

Units shipped to countries other than the U.S.A. and Canada are equipped with an AC Voltage Selector switch and Frequency Selector switch on the rear panel.

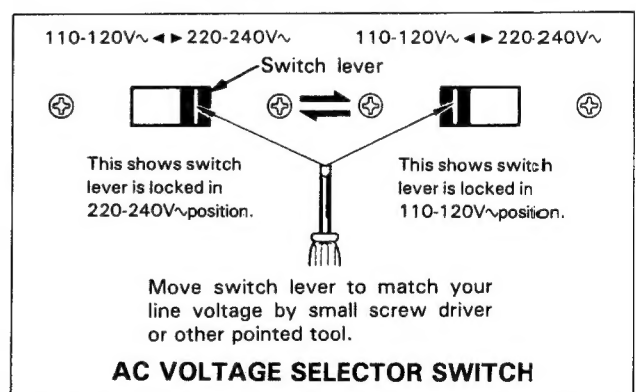
Refer to the following paragraph for the proper settings of these switches.

## AC VOLTAGE SELECTION

This unit operates on 110 — 120 volts or 220 — 240 volts AC. The AC Voltage Selector Switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

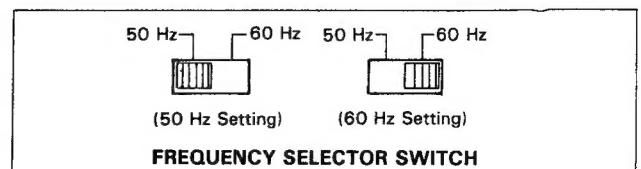
### Note:

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC Voltage Selector Switch.



## SELECTION OF POWER SUPPLY FREQUENCY

The unit has been factory adjusted to operate with a power supply frequency of 50 Hz. For operation at 60 Hz, be sure to set the Frequency Selector switch on the rear panel to the 60 Hz position before connecting the power cord.



## CONTENTS

BEFORE USE .....	3
SYSTEM CONNECTIONS .....	4
CONTROLS, INDICATORS, AND CONNECTORS ....	5
OPERATING INSTRUCTIONS .....	6
EXAMPLES OF TIME SETTING .....	9
IN CASE OF DIFFICULTY .....	10
SPECIFICATIONS .....	10
PROGRAM SHEET .....	11

# BEFORE USE

## INSTALLATION

- Do not use the unit in locations with high temperature (40°C or more) and humidity and do not expose it to direct sunlight. High temperatures adversely affect the performance of the unit.
- Keep the unit away from water to prevent any possibility of damage.
- Install the unit on a flat surface, free from dust and vibration.

## SAFETY PRECAUTIONS

- The unit is factory adjusted for optimum operation and no further adjustments are required. Do not open the case.
- When connecting or disconnecting the power cord, always hold the body of the plug, not the cord, making sure that your hand is dry. If your hand is wet, it could result in an electrical shock.
- Keep the unit away from any chemicals, as they could affect the finish of the case.
- When the unit is not to be used for a long period of time, be sure to disconnect the power cord.

## CAUTIONS

- When the power cord is plugged in and a power failure occurs, the indicator flashes to indicate that the time display is incorrect and preset programs are cleared. In this case, the display should be reset to the correct time referring to "Time Setting" on page 6 and the programs should be preset again referring to "Timer Setting" on pages 6, 7.
- A tape deck without a standby switch (timer start) cannot be used with the unit. If such a tape deck were to be connected to the unit, it could result in damage to the unit.
- The unit indicates the 24-hour time. For example, 13:00.00 represents 1:00.00 PM, 20:00.00 represents 8:00.00 PM, and so on.

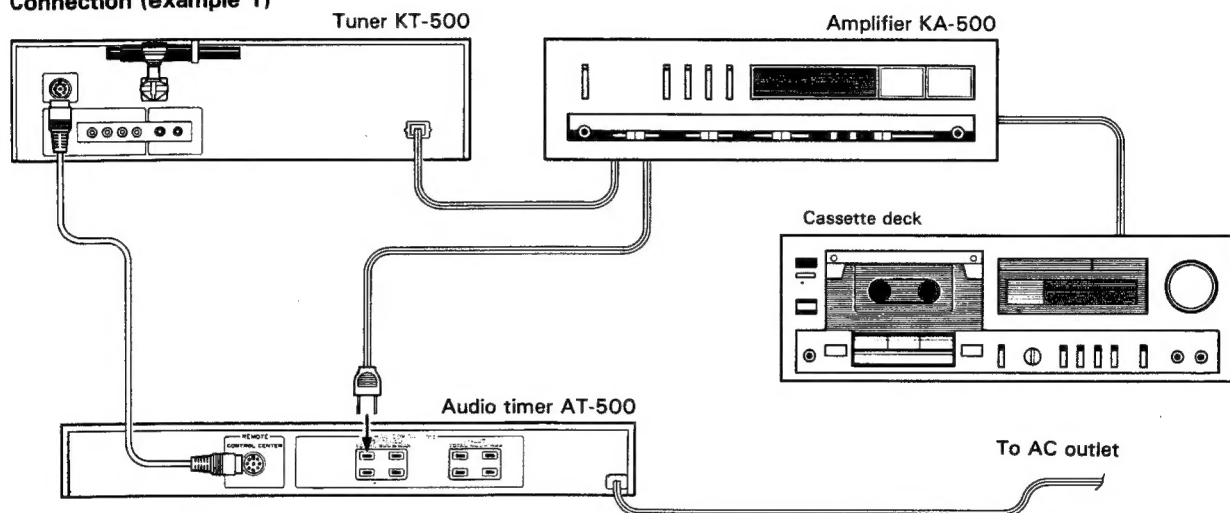
# SYSTEM CONNECTIONS

Two "SWITCHED" and two "DIRECT" AC outlets are provided on the rear panel. Before connecting audio components to these outlets, check that the power is OFF.

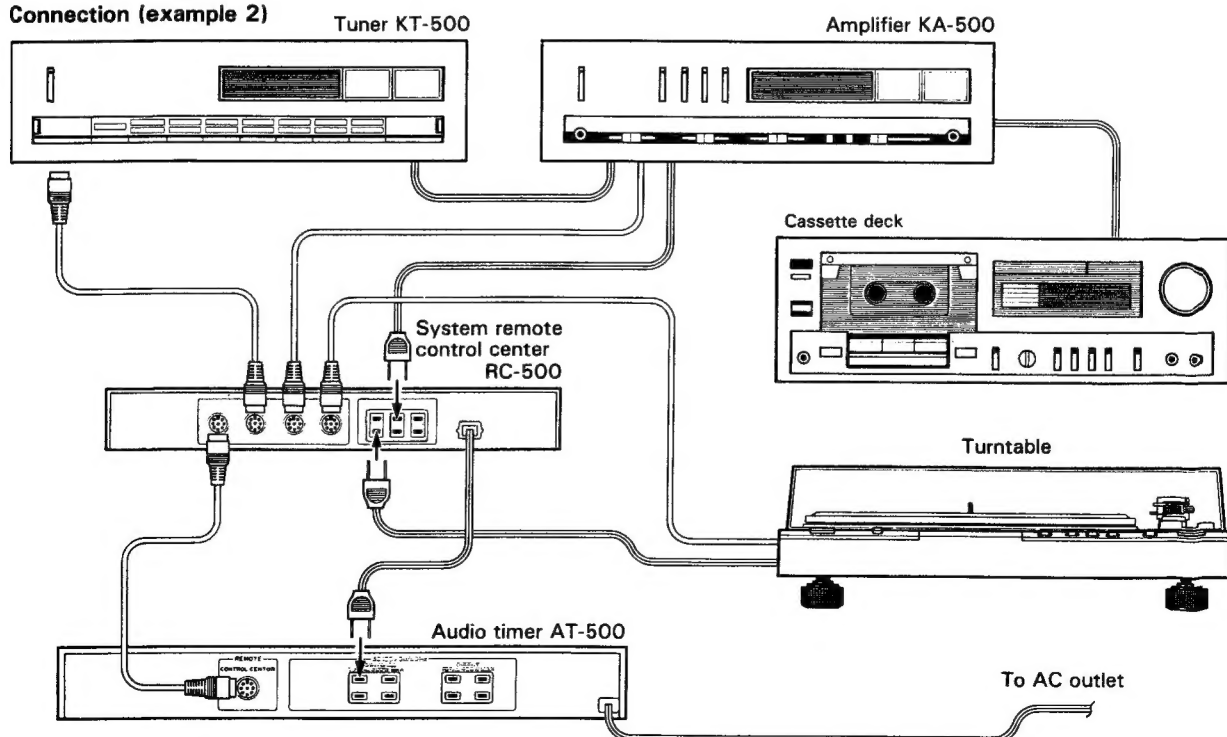
- **SWITCHED:** The power to the audio components is controlled by the ON/OFF action of the timer.
- **DIRECT:** The power to the audio components is always available.

Connection of the optional tuner (KT-500) with the accessory remote control cable permits automatic selection of AM/FM stations.

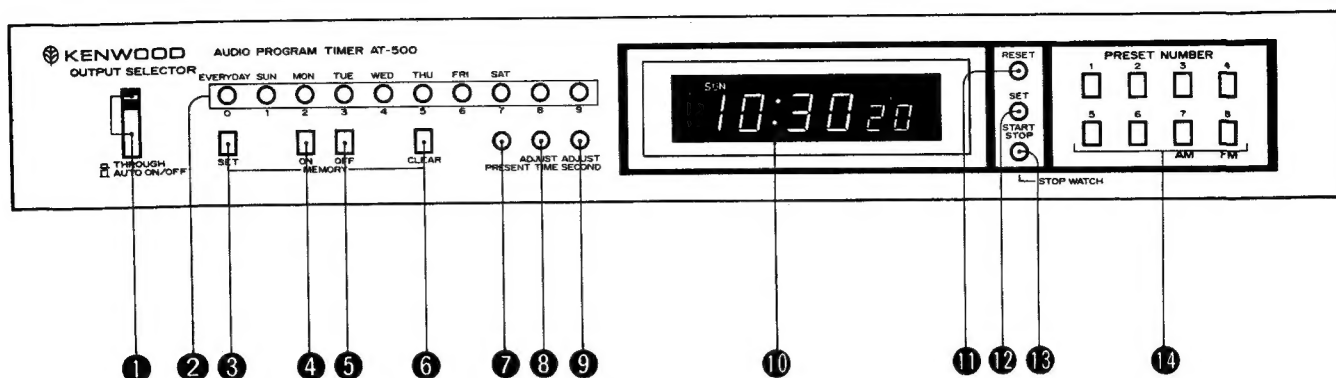
Connection (example 1)



Connection (example 2)



# CONTROLS, INDICATORS, AND CONNECTORS



## ① Timer Switch/Power Lamp

**THROUGH:** The power lamp remains on to indicate that the power is ON.

**AUTO ON/OFF:** The timer operates according to the preset program. The power lamp lights when the power is ON and goes off when the power is OFF.

## ② Week/Time Buttons

Used for setting the day of week and time. First set the day of week and then set the time.

## ③ Timer Set Button

By pressing the timer set button, the setting address "1" is called to indicate the program to be stored in the memory. This button is also used to check the setting of the timer.

### Note:

The setting address indicates the position where a program is stored. Twelve addresses "1" through "12" can be called individually by pressing the timer button repeatedly. When the 12th address is reached, and the button is pressed, the 13th address is indicated as 88:88 88. Then, the timer is reset to the 1st address the next time the button is pressed.

## ④ Timer ON Button

Press this button to turn ON programs at the desired time.

## ⑤ Timer OFF Button

Press this button to turn OFF programs at the desired time.

## ⑥ Timer Clear Button

By pressing this button, preset programs are cleared and the indicator displays a colon only. This feature is useful when you make a mistake in presetting programs.

## ⑦ Present Time Button

Press this button and the indicator displays the present time. Normally, this button should be left depressed.

## ⑧ Week/Time Adjust Button

When setting a day of week and time, first press this button and then press the week/time button.

## ⑨ Seconds Reset Button

This button is used to reset the seconds display to 00.

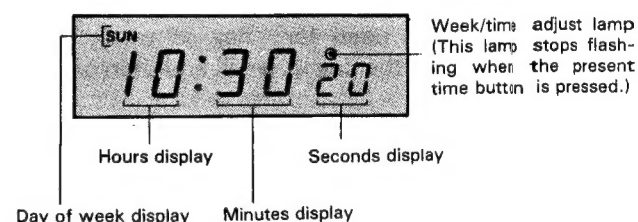
When the seconds indicator is displaying 00 to 29 and this button is pressed, the seconds display is reset to 00.

[Example] 7:15.12 is reset to 7:15.00.

when the seconds display is 30 to 59, it is reset to 00 as shown below.

[Example] 7:15.38 is reset to 7:16.00.

## ⑩ Indicator



## ⑪ Reset Button

By pressing this button, the stop-watch display is reset to 00:00.

## ⑫ Stop-watch Set Button

Press this button and the indicator functions as a stop-watch. With the start/stop button pressed, the indicator counts the minutes and seconds from 00:00 to 99:59.

## ⑬ Start/Stop Button

This button is used in conjunction with the stop-watch set button. Press the button and the indicator starts counting minutes and seconds. Press the button once again and the indicator stops counting.

## ⑭ Preset Button

This button is used to indicate the preset program number when a tuner interlocked with the timer is used.

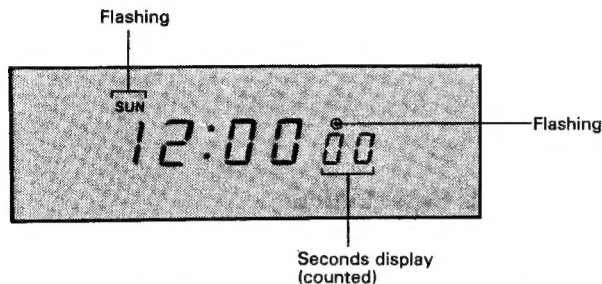
# OPERATING INSTRUCTIONS

## TIME SETTING

To set a day of week and time, refer to Section on page 5.

The setting procedure is as follows:

1. Connect the power cord to an outlet. The indicator will flash.
2. Press week/time adjust button (PRESENT TIME ADJUST). The time display will be as shown below. The seconds indicator shows the count has started.



3. Using a broadcast time signal, set the seconds display by pressing the seconds reset button (SECOND ADJUST). For example, if the present time is 9:27.45, wait until 9:28.00 and press the button just at 9:28.00, then the seconds display indicates "00". This completes the setting of seconds.

4. Press the week/time buttons so that the indicator displays the day of week and time (hours and minutes).

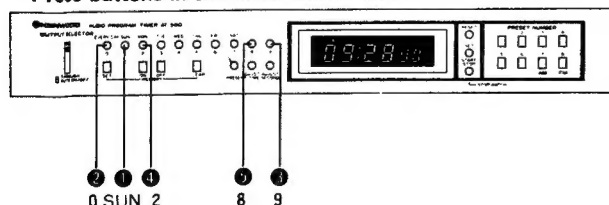
The buttons are used for "day of week" and "time". First set the day of week and then set the time.

### Note:

When setting the time, one digit of the display will flash to indicate that the button corresponding to that digit must be pressed.

### [Example] Setting to 9:28, Sunday

\* Press buttons in the order shown below.



5. Next, press the present time button. (PRESENT TIME).

The indicator will be set to the correct time and the week/time adjust lamp goes off. Note that the set time cannot be changed after the button has been pressed.

### Note:

When it becomes necessary to change the day of week and time, follow the procedures given in items 2 through 5.

## TIMER SETTING

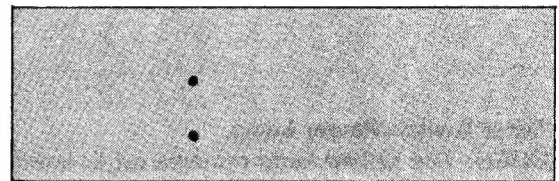
### Use of tuner capable of selecting stations with timer:

Connect the tuner to the timer using the remote control cord provided. Once the timer is set, the preset stations are automatically selected.

Up to 6 FM and 6 AM stations can be preset with the timer.

1. Press the timer set button (MEMORY SET) and the address "1" will be recalled and the indicator display is as shown below.

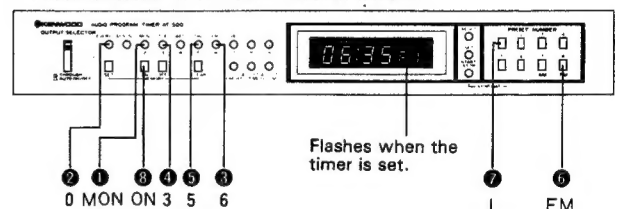
If the address called has already been stored in memory, call the next address.



2. Set the day of week, time and preset No. when the program is to start.

### [Example] Setting FM preset 1 to switch ON at 6:35AM, Monday

\* Press buttons in the order shown below.

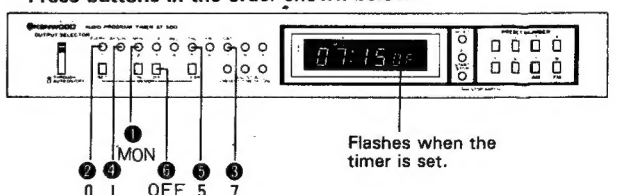


3. Press the timer set button (MEMORY SET) to call the next address.
4. Set the day of the week and time you wish the tuner to turn OFF.

To set, press the buttons in the order shown below, starting with "1".

### [Example] Setting tuner to switch OFF at 7:15 AM, Monday

\* Press buttons in the order shown below.



### Note:

When setting the timer to turn OFF the tuner, the preset No. cannot be programmed. When the preset No. has been programmed, the timer cannot be set to turn OFF the tuner.

5. Set the timer switch (OUTPUT SELECTOR) to AUTO ON/OFF.
6. Press the present time button (PRESENT TIME) so that the indicator indicates the present time.



# OPERATING INSTRUCTIONS

## Example of Program Settings

Address	Day of week	Time	Preset No.	Power ON/OFF
1	EVERYDAY	7:00	FM 1	ON
2	EVERYDAY	7:30	—	OFF
3	SUN	7:00	—	OFF
4	SUN	13:00	FM 2	ON
5	SUN	14:00	FM 1	ON
6	SUN	15:00	—	OFF
7	EVERYDAY	18:00	FM 2	ON
8	EVERYDAY	19:00	—	OFF
9	TUE	19:30	AM 1	ON
10	TUE	21:00	—	OFF
11	SAT	19:00	AM 2	ON
12	SAT	20:00	—	OFF

### Note:

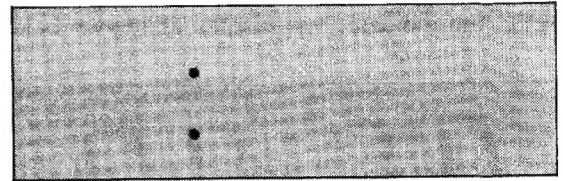
When two or more addresses have been set to the same time as shown in the above example (addresses 1 and 3), the last address takes precedence over the other.

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
7:00				FM 1			
8:00							
9:00							
10:00							
11:00							
12:00							
1:00	FM 2						
2:00	FM 1						
3:00							
4:00							
5:00							
6:00				FM 2			
7:00							AM 2
8:00			AM 1				
9:00							

## Use of tuner not capable of selecting stations with timer:

The power to the tuner is controlled by the ON/OFF action of the timer.

1. Press the timer set button (MEMORY SET) and the address "1" will be called. If the address called is already occupied, call the next address.

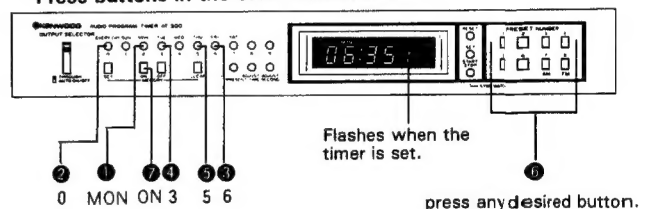


2. Set the day of the week, time and preset No. to control the tuner's power-ON action.

To set, press the buttons in the order shown below, starting with "1".

### [Example] Power ON at 6:35 AM, Monday

\* Press buttons in the order shown below.



### Note:

Any desired preset button can be pressed because the timer is used only to turn the power on and off.

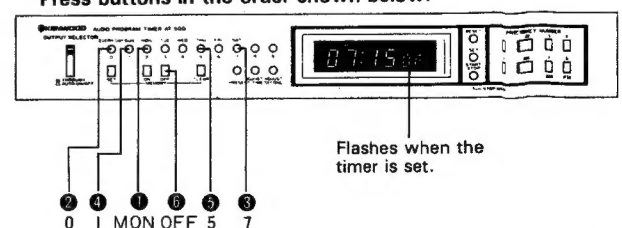
3. Press the timer set button (MEMORY SET) to call the next address.

4. Set the day of the week and time you wish to turn off the power.

To set, press the buttons in the order shown below, starting with "1".

### [Example] Power OFF at 7:15 AM, Monday

\* Press buttons in the order shown below.



5. Set the timer switch (OUTPUT SELECTOR) to AUTO ON/OFF.

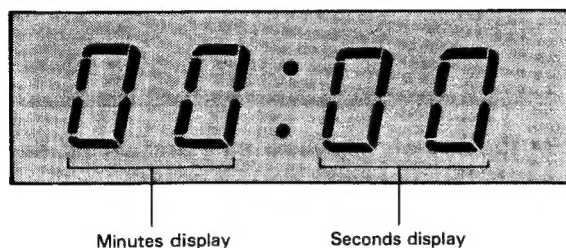
6. Press the present time button (PRESENT TIME) so that the indicator indicates the present time.

# OPERATING INSTRUCTIONS

## USE OF STOP-WATCH FUNCTION

The stop-watch set button allows you to use the indicator as a stop-watch, which is very helpful in checking the amount of time required to make a tape recording, etc. The stop-watch counts up to 99 minutes 59 seconds and then resets to 00 minute 00 second and continues counting.

1. Press the stop-watch set button (STOP WATCH SET). The indicator will display as shown below.



2. Press the start/stop button (STOP WATCH START STOP) and the indicator will start counting of minutes and seconds.
3. Press the start/stop button (STOP WATCH START STOP) once again. The indicator will stop counting.
4. To reset the indicator to 00:00, press the reset button (STOP WATCH RESET).

## TO CLEAR TIMER SETTING

When it becomes necessary to clear preset programs or when the wrong buttons have been pressed to set the timer, use the timer clear button. Preset programs can be cleared from each address unit.

1. Press the timer set button (MEMORY SET) to recall the address to be cleared.
2. Press the timer clear button (MEMORY CLEAR) and the called address will be cleared.
3. Press the present time button (PRESENT TIME). The indicator displays the present time.

## CHECKING THE TIMER SETTING

If it is desired to check the programs set in the timer, press the timer set button (MEMORY SET). The programs stored in the memory will be displayed one after another if the button is pressed repeatedly. To display the present time, press the present time button (PRESENT TIME).

## CAUTIONS

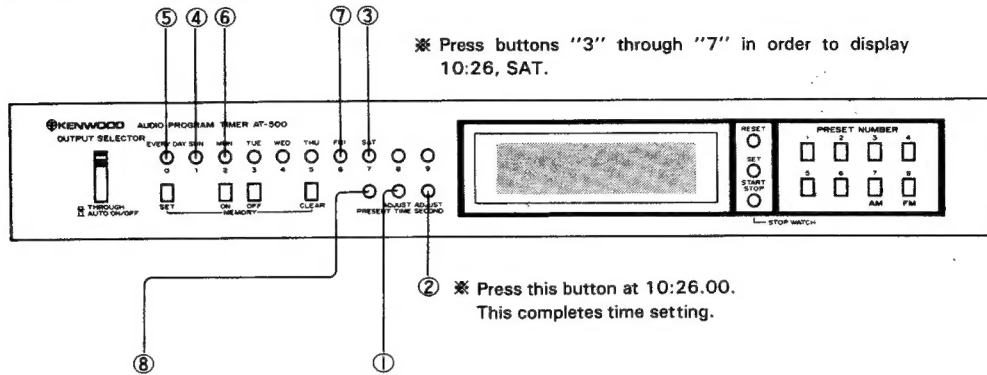
- When setting the power ON time, the power OFF time must also be set; otherwise the power will not turn OFF.
- The tuner starts operating 3 or 4 seconds after the timer becomes ON. The indicator flashes at the start of operation and, while it is flashing, signals from other stations may be received.
- Preset buttons must be used even when a tuner not interlocked with the timer is used.
- With the timer switch set to AUTO ON/OFF, the timer operates for a week according to the preset programs.



# EXAMPLES OF TIME SETTING

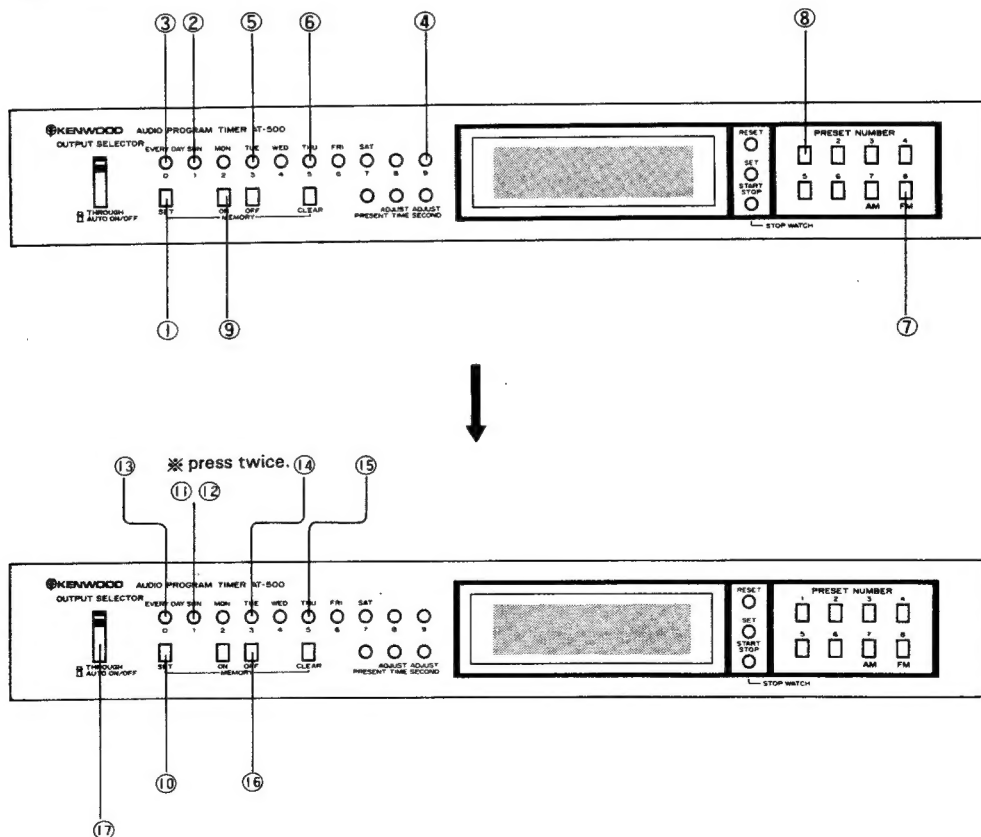
## Setting of time at 10:25.40 AM, Saturday

Note: Press buttons in order starting with "1".



## Setting of FM1 ON and OFF times to 9:35 AM and 10:35 AM, respectively

Note: Press buttons in order starting with "1".



# IN CASE OF DIFFICULTY

If trouble arises with the unit, conduct the following simple checks prior to calling for assistance.

Symptom	Cause	Remedy
Timer fails to keep correct time.	Power frequency select switch is not set to the correct frequency.	Set the switch to the correct frequency (see page 2).
Time display does not change.	Timer is not set to present time mode.	Press present time button.
Indicator flashes, displaying incorrect time.	Timer is ON after a power failure.	Set timer to correct time (see pages 6 and 7).
Power lamp remains ON with timer switch in AUTO ON/OFF position, making it impossible to set timer.	Program previously set in timer is still ON.	For example, set the OFF time one minute after the present time.
Timer is not set to present time mode when present time button is pressed.	Timer is not set correctly.	Set the timer correctly (see pages 6 and 7).
Incorrect seconds display.	Fluctuation of power frequency.	Cannot be corrected.

**Note:** When the indicator goes out for any reason, disconnect the power cord and connect again one or two minutes later. If the indicator is still blank after connection, contact your local Kenwood dealer or technical representative.

## SPECIFICATIONS

**Type** ..... One-week program timer

### Clock

**Time display** ..... 24-hour

**Driving system** ..... Power frequency synchronized microprocessor

**Indicator** ..... Fluorescent tube indicator

**Accuracy** ..... Depends on accuracy of power frequency

### Timer

**No. of settings** ..... 12 settings (84 settings in EVERY DAY mode)

**Selector output** ..... FM 1-6, AM 1-6 or  
(Tuning output) 1-8ch without FM and AM

**Accuracy** ..... Within +0.1 sec. (AC outlet)

**AC outlets** ..... U.S.A. and Canada Models  
SWITCHED: 600 W total  
DIRECT: 400 W total  
Other countries  
SWITCHED: 800 W total  
DIRECT: 400 W total

**Setting interval** ..... 1 min. ~  $\infty$

**Operating cycle** ..... 24 hours (EVERYDAY mode)  
1 week (WEEK mode)

### Stop-watch

**Maximum counting time** .... 99 minutes 59 seconds.

### Power supply

**Power requirements** ..... 60 Hz 120 V (U.S.A. and Canada Models) or 50/60 Hz 110~120/220~240 V switchable (other countries)

**Rated power consumption** .. 8 W

**Dimensions** ..... W 440 mm (17-5/16")  
H 71.5 mm (2-13/16")  
D 283 mm (11-5/32")

**Weight** ..... 3.4 kg (5.3 lbs.)

(Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.)

# PROGRAM SHEET

	AM												PM												
	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
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	AM												PM												
	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
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	AM												PM												
	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
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	AM												PM												
	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
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